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ROAD STRIPER

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1 Claim. (Cl. 15—503)

This invention relates to a road striper, i.e., a striper which is adapted to place a long lasting marking on a roadway.

It is an object of the present invention to provide a road striper which can apply a road marking rapidly, cleanly, easily, efficiently, and with a minimum of care.

It is another object of the present invention to provide a road striper which, without any effort on the operator's part, will deposit a long lasting stripe on irregular as well as regular road surfaces.

It is another object of the present invention to provide a road striper which is particularly adapted to lay down a uniform, clean stripe of a hot-fluid solventless water-insoluble settable synthetic plastic resin under such conditions that the stripe and road surface are intimately bonded, whereby the stripe will remain in place for years under normal traffic conditions.

It is another object of the present invention to provide a striper of the character described which also is adapted, at the option of the operator, to apply reflective material to the exposed, and as yet unset, surface of a freshly deposited solventless synthetic plastic road stripe.

It is another object of the present invention to provide a striper of the character described wherein the width of the stripe can be changed readily and with ease, even by unskilled operators.

It is another object of the present invention to provide a striper of the character described in which, when a change is made in the width of the solventless synthetic plastic plastic resin stripe deposited, a corresponding change can be made with equal ease in the width of the reflective material discharged onto the stripe.

It is another object of the present invention to provide a striper of the character described which constitutes relatively few, simple and easily assembled parts that can be manufactured at a low cost, that is durable and foolproof, and which, despite wide variations in the state of the weather, the state of the road and the quality of the personnel employed, is capable of always depositing a clean looking, uniform, well bonded plastic stripe.

Other objects of my invention in part will be obvious and in part will be pointed out hereinafter.

My invention accordingly consists in the features of construction, combinations of elements and arrangements of parts which will be exemplified in the road striper hereinafter described, and of which the scope of application will be indicated in the appended claim.

In the accompanying drawings in which is shown one of the various possible embodiments of my invention,

FIG. 1 is a partly cut away top plan view of a road striper made in accordance with my present invention;

FIG. 2 is a partly cut away side view of the road striper with the striper die shown closed, but lowered to touch the road surface;

FIG. 3 is a top plan view of the striper die;

FIG. 4 is a side view of the striper die as it appears when closed and clear of the road surface;

FIG. 5 is a sectional view taken substantially along the line 5—5 of FIG. 3, the striper die being shown in the same position as in FIG. 4;

FIG. 6 is a side view of the striper die shown in open position and engaging the road surface;

FIG. 7 is a longitudinal vertical cross-sectional view through the die in the position shown in FIG. 6;

FIG. 8 is a cross-sectional view taken substantially along the line 8—8 of FIG. 4;

FIG. 8*a* is an enlarged sectional view taken substantially along the line 8*a*—8*a* of FIG. 4;

FIG. 9 is a partially broken away side view of the hopper and distributor for the reflective material;

FIG. 10 is a partially broken away front view of said hopper and distributor;

FIG. 11 is a top view of the distributor clutch, the same being shown in closed position;

FIG. 12 is a front view of the distributor clutch in the same position as in FIG. 11;

FIG. 13 is a view similar to FIG. 12, but illustrating the clutch in open position;

FIG. 14 is a cross-sectional top view of the reservoir tank;

FIG. 15 is a cross-sectional vertical view of the tank;

FIG. 16 is a top plan view of the tank supports;

FIG. 17 is a side view of the tank heating mechanism;

FIG. 17*a* is a sectional view taken substantially along the line 17*a*—17*a* of FIG. 17;

FIG. 17*b* is an auxiliary view taken substantially along the line 17*b*—17*b* of FIG. 16;

FIG. 18 is a sectional view taken substantially along the line 18—18 of FIG. 1;

FIG. 19 is a side fragmentary view of the distributor actuating mechanism, the same being taken substantially along the line 19—19 of FIG. 1;

FIG. 20 is a sectional view through the steering post, the same being taken substantially along the line 20—20 of FIG. 2; and

FIG. 21 is a rear cross-sectional view of the steering mechanism.

Referring now in detail to the drawings, 10 denotes a road striper in accordance with the present invention. The road striper is built with a supporting framework consisting of L-shaped or U-shaped cross-section iron bars which are welded or otherwise joined together in a suitable manner. The front of the road striper is formed with an angle iron frame member 11. Extending rearwardly from the outer ends of the member 11 are a pair of parallel side members 12 and 13. The joints between the members 11 and 12 and between the members 11 and 13 may be mitred. Interconnecting the rearward ends of the members 12 and 13 is a frame member 14 parallel to the member 11 so as to form a rectangle. Extending rearwardly from the intersection of the members 12 and 14 is a rearwardly extending frame member 15 and extending rearwardly from the intersection of the members 13 and 14 is a frame member 16. Rearwardly extending members 15 and 16 converge and are joined by a short connecting bar 17 at the rear of the frame. A forward strut 18 and a rearward strut 19 reinforce the trapezoid thus formed. Extending upwardly from the intersection of the frame members 12, 14 and 15 is a frame member 20, U-shaped in cross-section, and extending upwardly from the intersection of the members 13, 14 and 16 is a U frame member 21. Extending upwardly from the rear end of the frame is a channel-shaped member 22. The lower end of the member 22 extends across the bar member 17 and may be welded to the bar 17 and the rear ends of the frame members 15 and 16. Other frame members, supports, reinforcing struts, and the like may be included in the construction as desired or found necessary.

A handle 25 is provided which has a grip bar 26 located rearwardly of the striper frame and perpendicular thereto, and forwardly extending portions 27 running from the ends of the grip bar 26. Portions 27 extend forwardly and inwardly so as to meet the narrow rear end of the